

Appl. No. 10/043,695
Amdt. dated 3/27/06
Reply to Office Action of 9/26/05

PATENT
Docket: 010110

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) In a mobile station including a preferred roaming list of wireless communications systems, a system acquisition procedure comprising the steps of:
maintaining a list of unusable wireless communications systems, each entry of a wireless communications system in the list of unusable wireless communications systems including a system identifier and corresponding avoidance criterion for not using the wireless communications system;
selecting a wireless communications system from the preferred roaming list of wireless communications systems in accordance with a predetermined system acquisition sequence, each entry of a wireless communications system in the preferred roaming list including a system identifier;
determining whether the selected wireless communications system from the preferred roaming list is a useable wireless communications system or an unusable wireless communications system;
attempting to acquire and register with the selected wireless communications system when the selected wireless communications system is determined to be a useable wireless communications system; and
repeating the step of selecting when the selected wireless communications system is determined to be an unusable wireless communications system,
wherein the selected wireless communications system is determined to be an unusable wireless communications system when a system identifier for the selected wireless communications system matches a system identifier in the list of unusable wireless communications systems and when avoidance criterion corresponding to the system identifier in the list of unusable wireless communications systems is satisfied.
2. (Original) The method of Claim 1 wherein each system identifier identifies at least one wireless communications system.
3. (Previously presented) The method of Claim 2 wherein each system identifier includes a frequency.

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4. (Previously presented) The method of Claim 1 wherein each system identifier includes a SID/NID pair that uniquely identifies a wireless communications system.

5. (Currently amended) The method of Claim 1 wherein the step of maintaining comprises the steps of:

detecting a communications failure with a wireless communications system; and
adding a new entry to the list of unusable wireless communications systems, the new entry including an identifier of the failed wireless communications system and corresponding avoidance criterion.

6. (Currently amended) The method of Claim 5 wherein the step of maintaining further comprises the steps of:

assigning an avoidance duration to the detected ~~system-communications~~ failure; and
calculating an avoidance time before which the failed wireless communications system is unusable, the avoidance time equal to a current time plus the avoidance duration, wherein the avoidance criterion includes the avoidance time.

7. (Original) The method of Claim 6 wherein the avoidance criterion is satisfied if the stored avoidance time is greater than the current time.

8. (Currently amended) The method of Claim ~~6-7~~ wherein the step of assigning an avoidance duration comprises the steps of:

maintaining a list of detectable ~~wireless-communications~~ failures, each detectable ~~wireless-communications~~ failure having a corresponding avoidance duration;
locating the detected ~~system-communications~~ failure in the list of ~~wireless~~ communications failures; and
using the corresponding avoidance duration in the step of calculating.

9. (Currently amended) The method of Claim ~~5-8~~ wherein the step of detecting includes the step of detecting failed attempts to acquire and register with the selected wireless communications system.

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10. (Currently amended) The method of Claim 1-9 wherein the steps of selecting and attempting are repeated until the mobile ~~station device~~ successfully acquires and registers with the selected wireless communications system.

11. (Currently amended) The method of Claim 1 wherein the wireless communications systems are selected from the preferred systems list in a predetermined order of desirability.

12. (Currently amended) In a mobile station, a method for marking wireless communications systems as unusable wireless communications systems, comprising the steps of:

maintaining a list of unusable wireless communications systems, each entry of a wireless communications system in the list of unusable wireless communications systems including a system identifier and corresponding avoidance criterion for not using the wireless communications system;

detecting a communications failure associated with a currently selected wireless communications system; and

adding a record to the ~~stored~~-list of unusable wireless communications systems, the added record including an identifier of the currently selected wireless communications system and corresponding avoidance criterion based on the detected communications failure, wherein the currently selected wireless communications system is unusable while the corresponding avoidance criterion is satisfied.

13. (Currently amended) The method of Claim 12 wherein each system identifier is associated with at least one wireless communications system.

14. (Currently amended) The method of Claim 12 wherein the step of adding comprises the steps of:

assigning an avoidance duration to the detected communications failure;

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calculating an avoidance time before which the failed wireless communications system is unusable, wherein the avoidance time is equal to a current time plus the avoidance duration; and

storing the avoidance time as the corresponding avoidance criterion.

15. (Currently amended) The method of Claim 14 wherein the step of assigning an avoidance duration comprises the step of:

maintaining a list of ~~identified wireless communications failures~~, each wireless communications failure having a corresponding avoidance duration;

locating the detected ~~system communications~~ failure in the list of wireless communications failures; and

using the corresponding avoidance duration in the step of calculating.

16. (Currently amended) The method of Claim 15 wherein at least two avoidance durations stored in the list of ~~identified wireless communications failures~~ have different values.

17. (Currently amended) A mobile station comprising:

a memory storing a preferred roaming list of wireless communications systems, the preferred roaming list including a first plurality of system identifiers and corresponding acquisition parameters for corresponding wireless communications systems; and

processing circuitry adapted to create and maintain a list of unusable wireless communications systems, the list of unusable wireless communications systems being stored in the memory and including a second plurality of system identifiers and corresponding avoidance criterion for not using corresponding unusable wireless communications systems,

wherein a selected wireless communications system from the preferred roaming list is determined to be an unusable wireless communications system when a system identifier for the selected wireless communications system matches a system identifier in the list of unusable wireless communications systems and when avoidance criterion corresponding to the system identifier in the list of unusable wireless communications systems is satisfied.

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18. (Currently amended) The mobile station of Claim 17 wherein the processing circuitry comprises:

a system determination unit adapted to select wireless communications systems from the preferred roaming list in accordance with a predetermined system acquisition procedure and attempt to acquire selected wireless communications systems that are usable.

19. (Currently amended) The mobile station of Claim 18 wherein the processing circuitry is further adapted to detect communications failures with selected wireless communications systems, and in response to a detected communications failure, add an entry to the list of unusable wireless communications systems, the entry including a system identifier for the selected wireless communications system and an avoidance time, the avoidance time indicating a duration during which the selected wireless communications system is unusable.

20. (Original) The mobile station of Claim 19 further including a clock, wherein the memory further includes a list of communications failures, each communications failure having a corresponding avoidance duration, and wherein the avoidance time equals a current time as measured by the clock plus the avoidance duration for the corresponding communications failure.

21. (Currently amended) The mobile station of Claim 20 wherein the processing circuitry is further adapted to delete an entry from the list of unusable wireless communications systems when the corresponding avoidance time is less than the current time.

22. (New) A processor readable media for storing instructions operable in a wireless device to:

maintain a list of unusable wireless communications systems, each entry of a wireless communications system in the list of unusable wireless communications systems including avoidance criterion for not using the wireless communications system;

select a wireless communications system from a preferred roaming list of wireless communications systems;

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determine whether the selected wireless communications system from the preferred roaming list is a usable wireless communications system or an unusable wireless communications system, wherein the selected wireless communications system is determined to be an unusable wireless communications system when the selected wireless communications system is included in the list of unusable wireless communications systems and when the corresponding avoidance criterion is satisfied; and

attempt to acquire and register with the selected wireless communications system when the selected wireless communications system is determined to be a useable wireless communications system.

23. (New) The processor readable media of claim 22, and further for storing instructions operable to:
detect a communications failure with a wireless communications system; and
add a new entry for the failed wireless communications system to the list of unusable wireless communications systems, the new entry including avoidance criterion for the failed wireless communications system.

24. (New) The processor readable media of claim 23, and further for storing instructions operable to:
assign an avoidance duration to the detected communications failure; and
calculate an avoidance time before which the failed wireless communications system is unusable, the avoidance time being equal to a current time plus the avoidance duration, wherein the avoidance criterion includes the avoidance time.